



# EU Type Examination Certificate CML 16ATEX3343X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment GRP Junction Box DJBG3 Manufacturer Dong-A Bestech Co., Ltd.

4 Address 13-16 Samjeong-dong

Ojeong-ku Bucheon-city Kyunggi-do Republic of Korea

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

- If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14
- This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012,A11:2013, Corr3 EN60079-7-2015 EN 60079-11:2012 EN 60079-31:2014

10 The equipment shall be marked with the following:

(€x)<sub>II 1 G</sub>

⟨£x⟩<sub>II 2 €</sub>

ξχ)<sub>II 2 D</sub>

Ex ia IIC T\* Ga

Ex eb IIC T\* Gb

Ex tb IIIC T\*°C Db
Ex ia IIIC T\*°C Db

Ta = -60 °C to +80 °C (T4/ T135°C) Ta = -60 °C to 55 °C (T5/ T100°C) Ta = -60 °C to +40 °C (T6/ T85°C)

11 Description

H M Amos MIET Technical Manager





The GRP Junction Box DJBG are rectangular terminal enclosures consisting of body and removable cover. The terminal boxes are intended for fixed mounting only for use with suitably certified terminals mounted on terminal rails.

The body and cover are manufactured from Sheet Molding Compound (KE 4231)) and are fastened using M6 bolts. A Silicone (WMQ) O-ring gasket in the cover provides an environmental rating of IP 66. Entries are provided for suitably certified cable glands and drain plugs. An earth plate can be installed internally on the thread of a cable gland and provides an M4 bonding stud.

The enclosures are available in the following sizes:

Par	t Number	Length (mm)	Width (mm)	Height (mm)
DJBG	112.5A	114.5	114.5	90
	112.5B	114.5	172	90
	160A-1	162	162	90
	160B-1	162	262	90
	160C-1	162	362	90
	200A-1	202	202	90
	250A-1	252	252	90

The total dissipated power for the particular application must be calculated in accordance with IEC 60079-7, Annex E and shall not exceed the values in the table below

Model		EPL	Temperature Class/				
			Maximum Surface Temperature				
			T6 / T85°C	T5 / T100°C	T4 / T135°C		
			Tamb ≤ 40 °C	Tamb ≤ 55 °C	Tamb ≤ 80 °C		
DJBG-	112.5A	Ga, Gb, Db	4.95 W	4.95 W	4.95 W		
	112.5B	Ga, Gb, Db	5.04 W	5.04 W	5.04 W		
	160A-1	Ga, Gb, Db	7.3 W	7.3 W	7.3 W		
	160B-1	Ga, Gb, Db	7.6 W	7.6 W	7.6 W		
	160C-1	Ga, Gb, Db	8.56 W	8.56 W	8.56 W		
	200A-1	Ga, Gb, Db	9.24 W	9.24 W	9.24 W		
	250A-1	Ga, Gb, Db	10.59 W	10.59 W	10.59 W		

#### 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes		
0	27/12/2016	R969A/00	Issue of prime certificate		

Note: Drawings that describe the equipment or component are listed in the Annex.





#### 13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- The power and voltage rating marking on the label will be allocated in accordance with the table detailed in the description. The manufacturer will take all reasonable steps to ensure that the power dissipated by the terminal box does not exceed the maximum value stipulated in the table detailed in the description, and shall supply all the relevant information that will allow the installer/user to calculate the power dissipation (Watts) in accordance with IEC/EN 60079-7, Annex E, E.2 for each terminal box and install in accordance with IEC/EN 60079-14
- When terminals are supplied with the enclosure they shall be appropriately certified Ex components. They shall be installed in accordance with the certification documentation and the manufacturer's instructions. All Specific Conditions of Certification/ Special Conditions for Safe Use/ Schedule of Limitations must be satisfied. A copy of the approved terminals certification shall be provided with the terminal box documents.

All creepage and clearance distances as defined in IEC 60079-7 Table 2 shall be observed for the voltage rating marking.

The terminals fitted shall be suitable for the lower operating temperature marked on the certification label and must have a minimum operating temperature suitable for the temperature class as specified in the table below:

Temperature Class	Minimum Upper Continuous	
	Operating Temperature	
T4/ T135°C	120°C	
T5/ T100°C	95°C	
T6/ T85°C	80°C	

13.4 If the terminals are fitted with cables/wiring by the manufacturer; all creepage and clearance distances as defined in IEC 60079-7 Table 2 shall be observed. A routine dielectric strength test shall be carried out on each unit in accordance with IEC/EN 60079-7:2015, clause 7.1.

The test voltage shall be determined on the basis of the marked maximum rated voltage, with the appropriate safety factor and test duration applied in accordance with IEC/EN 60079-7:2015, clause 6.1.

No flashover or breakdown shall occur.





#### 14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 POTENTIAL ELECTROSTATIC CHARGING HAZARD, equipment shall only be cleaned with a damp cloth to prevent the risk of electrostatic discharge.
- 14.2 All cable glands and plugs/stoppers for unused entries shall be suitable for use with the equipment and shall be:
  - certified as groups II and III, and have Ex eb and/or Ex tb marking (as applicable).
  - have a minimum ingress protection of IP 66.
- 14.3 The cable entry point may be +40K above ambient. Use appropriate rated cables.
- When used for 'Ex ia IIIC T\*\*°C Db' applications, the enclosures shall only be used in either Zone 21 or 22 locations and circuits are required to be supplied via an over-power protection supply marked [Ex ia IIIC Da or Db].



Equipment GRP Junction Box DJBG

Manufacturer Dong-A Bestech Co., Ltd.



The following documents describe the equipment or component defined in this certificate:

#### Issue 0

Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-112.5A	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 112.5A)
BSA-JB15-DJBG-112.5B	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 112.5B)
BSA-JB15-DJBG-160A-1	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 160A-1)
BSA-JB15-DJBG-160B-1	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 160B-1)
BSA-JB15-DJBG-160C-1	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 160C-1)
BSA-JB15-DJBG-200A-1	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 200A-1)
BSA-JB15-DJBG-250A-1	1 of 1	1	27/12/2016	GRP Junction Box (DJBG 250A-1)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M16
16AB				(112.5*112.5*90-A/B)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M16
16CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M20
20AB				(112.5*112.5*90-A/B)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M20
20CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M25
25AB				(112.5*112.5*90-A/B)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M25
25CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M32
32AB				(112.5*112.5*90-A/B)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M32
32CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M40
40CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5A-	1 of 1	0	27/12/2016	GRP Junction Box – M50
50CD				(112.5*112.5*90-C/D)
BSA-JB15-DJBG-12.5B-	1 of 1	0	27/12/2016	GRP Junction Box – M16
16AB				[(112.5*170*90-A/B)



**Equipment** GRP Junction Box DJBG



Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-12.5B- 16CD	1 of 1	0	27/12/2016	GRP Junction Box – M16
1000				[(112.5*170*90-C/D)
BSA-JB15-DJBG-12.5B- 20AB	1 of 1	0	27/12/2016	GRP Junction Box – M20
				[(112.5*170*90-A/B)
BSA-JB15-DJBG-12.5B- 20CD	1 of 1	0	27/12/2016	GRP Junction Box – M20
				[(112.5*170*90-C/D)
BSA-JB15-DJBG-12.5B- 25AB	1 of 1	0	27/12/2016	GRP Junction Box – M25
				[(112.5*170*90-A/B)
BSA-JB15-DJBG-12.5B- 25CD	1 of 1	0	27/12/2016	GRP Junction Box – M25
				[(112.5*170*90-C/D)
BSA-JB15-DJBG-12.5B- 32AB	1 of 1	0	27/12/2016	GRP Junction Box – M32
				[(112.5*170*90-A/B)
BSA-JB15-DJBG-12.5B- 32CD	1 of 1	0	27/12/2016	GRP Junction Box – M32
				[(112.5*170*90-C/D)
BSA-JB15-DJBG-12.5B- 40AB	1 of 1	0	27/12/2016	GRP Junction Box – M40
				[(112.5*170*90-A/B)
BSA-JB15-DJBG-12.5B- 40CD	1 of 1	0	27/12/2016	GRP Junction Box – M40
DOA 1045 D 100 40 50			07/40/0040	[(112.5*170*90-C/D)
BSA-JB15-DJBG-12.5B- 50AB	1 of 1	0	27/12/2016	GRP Junction Box – M50
			07/40/0040	[(112.5*170*90-A/B)
BSA-JB15-DJBG-12.5B- 50CD	1 of 1	0	27/12/2016	GRP Junction Box – M50
			07/40/0040	[(112.5*170*90-C/D)
BSA-JB15-DJBG-160A-   16AB	1 of 1	0	27/12/2016	GRP Junction Box – M16
DOA 1045 D 100 4004	4 . 5 4		07/40/0040	(160*160*90-A/B)
BSA-JB15-DJBG-160A-   16CD	1 of 1	0	27/12/2016	GRP Junction Box – M16
DOA ID45 D ID0 4004	4 -5 4		07/40/0040	(160*160*90-C/D)
BSA-JB15-DJBG-160A- 20AB	1 of 1	0	27/12/2016	GRP Junction Box – M20 (160*160*90-A/B)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M20
20CD	1 01 1		21/12/2010	(160*160*90-C/D)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M25
25AB			2111212010	(160*160*90-A/B)
		<u> </u>		(100 100 30-700)



**Equipment** GRP Junction Box DJBG



Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-160A- 25CD	1 of 1	0	27/12/2016	GRP Junction Box – M25
2300				(160*160*90-C/D)
BSA-JB15-DJBG-160A- 32AB	1 of 1	0	27/12/2016	GRP Junction Box – M32
JZAD				(160*160*90-A/B)
BSA-JB15-DJBG-160A- 32CD	1 of 1	0	27/12/2016	GRP Junction Box – M32
3200				(160*160*90-C/D)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M40
40AB				(160*160*90-A/B)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M40
40CD				(160*160*90-C/D)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M50
50AB				(160*160*90-A/B)
BSA-JB15-DJBG-160A-	1 of 1	0	27/12/2016	GRP Junction Box – M50
50CD				(160*160*90-C/D)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M16
16AB				(260*160*90-A/B)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M16
16CD				(260*160*90-C/D)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M20
20AB				(260*160*90-A/B)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M20
20CD				(260*160*90-C/D)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M25
25AB				(260*160*90-A/B)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M25
25CD				(260*160*90-C/D)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M32
32AB				(260*160*90-A/B)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M32
32CD				(260*160*90-C/D)
BSA-JB15-DJBG-160B-	1 of 1	0	27/12/2016	GRP Junction Box – M40
40AB				(260*160*90-A/B)



**Equipment** GRP Junction Box DJBG



Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-160B- 40CD	1 of 1	0	27/12/2016	GRP Junction Box – M40
				(260*160*90-C/D)
BSA-JB15-DJBG-160B- 50AB	1 of 1	0	27/12/2016	GRP Junction Box – M50 (260*160*90-A/B)
BSA-JB15-DJBG-160B- 50CD	1 of 1	0	27/12/2016	GRP Junction Box – M50 (260*160*90-C/D)
BSA-JB15-DJBG-160C- 16AB	1 of 1	0	27/12/2016	GRP Junction Box – M16 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 16CD	1 of 1	0	27/12/2016	GRP Junction Box – M16 (360*160*90-C/D)
BSA-JB15-DJBG-160C- 20AB	1 of 1	0	27/12/2016	GRP Junction Box – M20 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 20CD	1 of 1	0	27/12/2016	GRP Junction Box – M20 (360*160*90-C/D)
BSA-JB15-DJBG-160C- 25AB	1 of 1	0	27/12/2016	GRP Junction Box – M25 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 25CD	1 of 1	0	27/12/2016	GRP Junction Box – M25 (360*160*90-C/D)
BSA-JB15-DJBG-160C- 32AB	1 of 1	0	27/12/2016	GRP Junction Box – M32 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 32CD	1 of 1	0	27/12/2016	GRP Junction Box – M32 (360*160*90-C/D)
BSA-JB15-DJBG-160C- 40AB	1 of 1	0	27/12/2016	GRP Junction Box – M40 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 40CD	1 of 1	0	27/12/2016	GRP Junction Box – M40 (360*160*90-C/D)
BSA-JB15-DJBG-160C- 50AB	1 of 1	0	27/12/2016	GRP Junction Box – M50 (360*160*90-A/B)
BSA-JB15-DJBG-160C- 50CD	1 of 1	0	27/12/2016	GRP Junction Box – M50 (360*160*90-C/D)
BSA-JB15-DJBG-200A- 16AB	1 of 1	0	27/12/2016	GRP Junction Box – M16 (200*200*90-A/B)



**Equipment** GRP Junction Box DJBG



Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-200A- 16CD	1 of 1	0	27/12/2016	GRP Junction Box – M16 (200*200*90-C/D)
BSA-JB15-DJBG-200A- 20AB	1 of 1	0	27/12/2016	GRP Junction Box – M20 (200*200*90-A/B)
BSA-JB15-DJBG-200A- 20CD	1 of 1	0	27/12/2016	GRP Junction Box – M20 (200*200*90-C/D)
BSA-JB15-DJBG-200A- 25AB	1 of 1	0	27/12/2016	GRP Junction Box – M25 (200*200*90-A/B)
BSA-JB15-DJBG-200A- 25CD	1 of 1	0	27/12/2016	GRP Junction Box – M25 (200*200*90-C/D)
BSA-JB15-DJBG-200A- 32AB	1 of 1	0	27/12/2016	GRP Junction Box – M32 (200*200*90-A/B)
BSA-JB15-DJBG-200A- 32CD	1 of 1	0	27/12/2016	GRP Junction Box – M32 (200*200*90-C/D)
BSA-JB15-DJBG-200A- 40AB	1 of 1	0	27/12/2016	GRP Junction Box – M40 (200*200*90-A/B)
BSA-JB15-DJBG-200A- 40CD	1 of 1	0	27/12/2016	GRP Junction Box – M40 (200*200*90-C/D)
BSA-JB15-DJBG-200A- 50AB	1 of 1	0	27/12/2016	GRP Junction Box – M50 (200*200*90-A/B)
BSA-JB15-DJBG-200A- 50CD	1 of 1	0	27/12/2016	GRP Junction Box – M50 (200*200*90-C/D)
BSA-JB15-DJBG-250A- 16AB	1 of 1	0	27/12/2016	GRP Junction Box – M16 (250*260*90-A/B)
BSA-JB15-DJBG-250A- 16CD	1 of 1	0	27/12/2016	GRP Junction Box – M16 (250*260*90-C/D)
BSA-JB15-DJBG-250A- 20AB	1 of 1	0	27/12/2016	GRP Junction Box – M20 (250*260*90-A/B)
BSA-JB15-DJBG-250A- 20CD	1 of 1	0	27/12/2016	GRP Junction Box – M20 (250*260*90-C/D)
BSA-JB15-DJBG-250A- 25AB	1 of 1	0	27/12/2016	GRP Junction Box – M25 (250*260*90-A/B)



Equipment GRP Junction Box DJBG

Manufacturer Dong-A Bestech Co., Ltd.



Drawing No	Sheets	Rev	CML Approved date	Title
BSA-JB15-DJBG-250A- 25CD	1 of 1	0	27/12/2016	GRP Junction Box – M25 (250*260*90-C/D)
BSA-JB15-DJBG-250A- 32AB	1 of 1	0	27/12/2016	GRP Junction Box – M32 (250*260*90-A/B)
BSA-JB15-DJBG-250A- 32CD	1 of 1	0	27/12/2016	GRP Junction Box – M32 (250*260*90-C/D)
BSA-JB15-DJBG-250A- 40AB	1 of 1	0	27/12/2016	GRP Junction Box – M40 (250*260*90-A/B)
BSA-JB15-DJBG-250A- 40CD	1 of 1	0	27/12/2016	GRP Junction Box – M40 (250*260*90-C/D)
BSA-JB15-DJBG-250A- 50AB	1 of 1	0	27/12/2016	GRP Junction Box – M50 (250*260*90-A/B)
BSA-JB15-DJBG-250A- 50CD	1 of 1	0	27/12/2016	GRP Junction Box – M50 (250*260*90-C/D)